



09/882,826 IDS2

**In the United States Patent and Trademark Office**

Ser. Num. 09/882,826  
Appn. Filed 06/16/2001  
Applicant: Che-Chih Tsao  
Appn. Title Pattern projection techniques for volumetric 3D displays and 2D displays  
Examiner: Fatahi Yar, Mahmoud  
Grp Art Unit 2674

Mailed: *Sep. 7, 2004*

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**Information Disclosure Statement (No. 2)**

Commissioner of Patents and Trademarks  
Washington DC 20231

Sir:

Attached is a completed Form PTO-1449 Substitute and copies of the pertinent parts of the references listed on this form. Comments on each of those references are as follows:

Zavracky et al. describes a color projector system based on field sequential color method. The color illumination is provided by various systems. In one system, a dichroic mirror assembly separates a white light into R, G and B color and then a rotating prism scrolls the R G B light stripes across the display panel. In another system, a switchable color filter modulates a white light source to create sequential R, G and B illuminations. Still another system uses a rotating color cone to generate sequential color illumination. In all cases, a 2D image is formed by merging sequential color frames.

Ferguson describes a display system that applies a birefringent material to displace two successive image frames and then combine them into one super frame to increase resolution. Ferguson's also describes a light source intensity control system for energy saving.

Susuki et al. describes an illumination technique for color display systems that applies a hologram device over a display panel. A white light illumination on the hologram device creates R G B light patterns after the hologram. The color patterns register to R G B pixels respectively.

Ikeda et al. describes a reflective display panel with built-in optical arrays of micro-lens and interference filters illumination and display. The optical arrays turn a white input light into R G B color patterns that can then be registered to R G B pixels.

Wallace reports another display illumination system that applies an array of micro-lens and two layers of micro-cube arrays. The micro-cube array comprises micro-prism with interference color filters. The integrated optical array also separates a white input light into R G B light patterns that can be registered to R G B pixels of a display panel.

Wilkinson et al. describes the principle of optical correlator based on FLC SLM.

Hecht (1 page printout) describes the principle of lens as a Fourier transformer.

Very respectfully,

  
Che-Chih Tsao  
Applicant

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Applicant: Che-Chih Tsao

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**US Patent Documents**

Initial	Number	Issue Date	Name(s)	Class	Subclass	Filing Date
	6,097,352	8/1/2000	Zavracky et al.	345	7	10/14/1997
	6,243,055	6/5/2001	Ferguson, J.L.	345	32	6/19/1998
	5,999,282	12/7/1999	Suzuki et al.	359	20	11/7/1996
	5,566,007	10/15/1996	Ikeda et al.	359	40	9/2/1994

**Foreign Patent Documents**

N/A

**Other Publications**

1. Wallace, J. "Liquid Crystal Projectors: Micro-optics deliver colors", Laser Focus World, May 2000, p. 78-82
2. Wilkinson et al., "Optical Comparator Based on an FLC over Silicon SLM", from <http://www.g.eng.cam.ac.uk/phonics/corry/jtc.html>
3. Hecht, E. OPTICS, 2nd ed. Edison-Wesley, pp. 477

Examiner \_\_\_\_\_

Date Considered \_\_\_\_\_